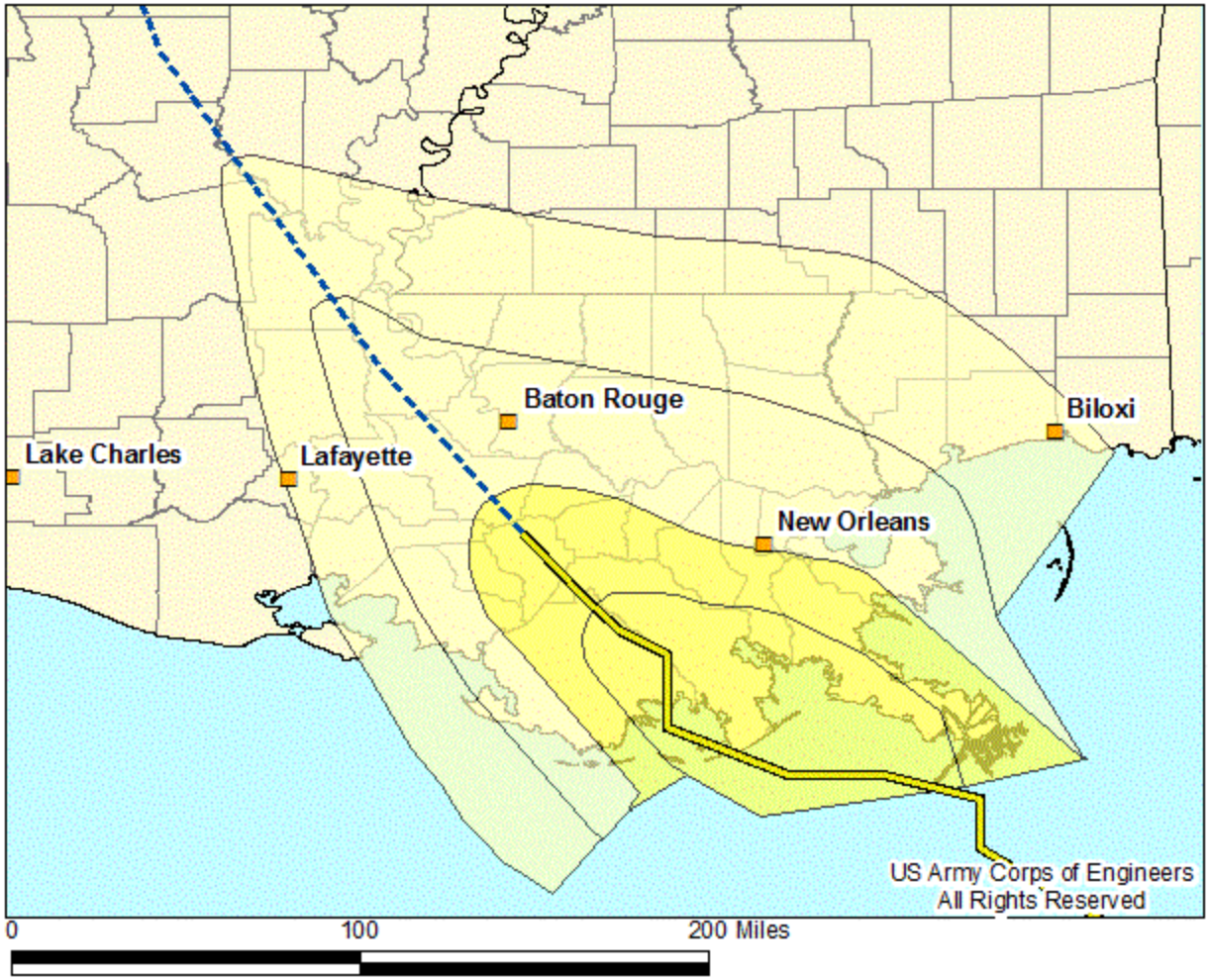
Hurricane Isaac Projected Damage Areas

Landfall Plus About 11 Hours

US Army Corps of Engineers

For Planning Purposes Only!



Post Landfall Projected Damage Areas

This model is based on a Category 1 storm making landfall SE of Houma, LA.

Forecast Track
Historic Track

Projected Damage Areas

- CAT 0-type damage
- CAT 1-type damage
- CAT 2-type damage
- CAT 3-type damage
- CAT 4-type damage
- CAT 5-type damage

Information provided on this page displays a projected or actual Category 1 storm making landfall SE of Houma, LA. These projections are based on information from the NHC (1700 EDT 08/29/2012) forecast and extrapolated by LRL staff to represent a landfall condition that has either occurred or may occur in the near future.

Details about this model may be obtained at http://www.englink.usace.army.mil or contact Louisville District staff at DLL-CELRL-GIS@usace.army.mil

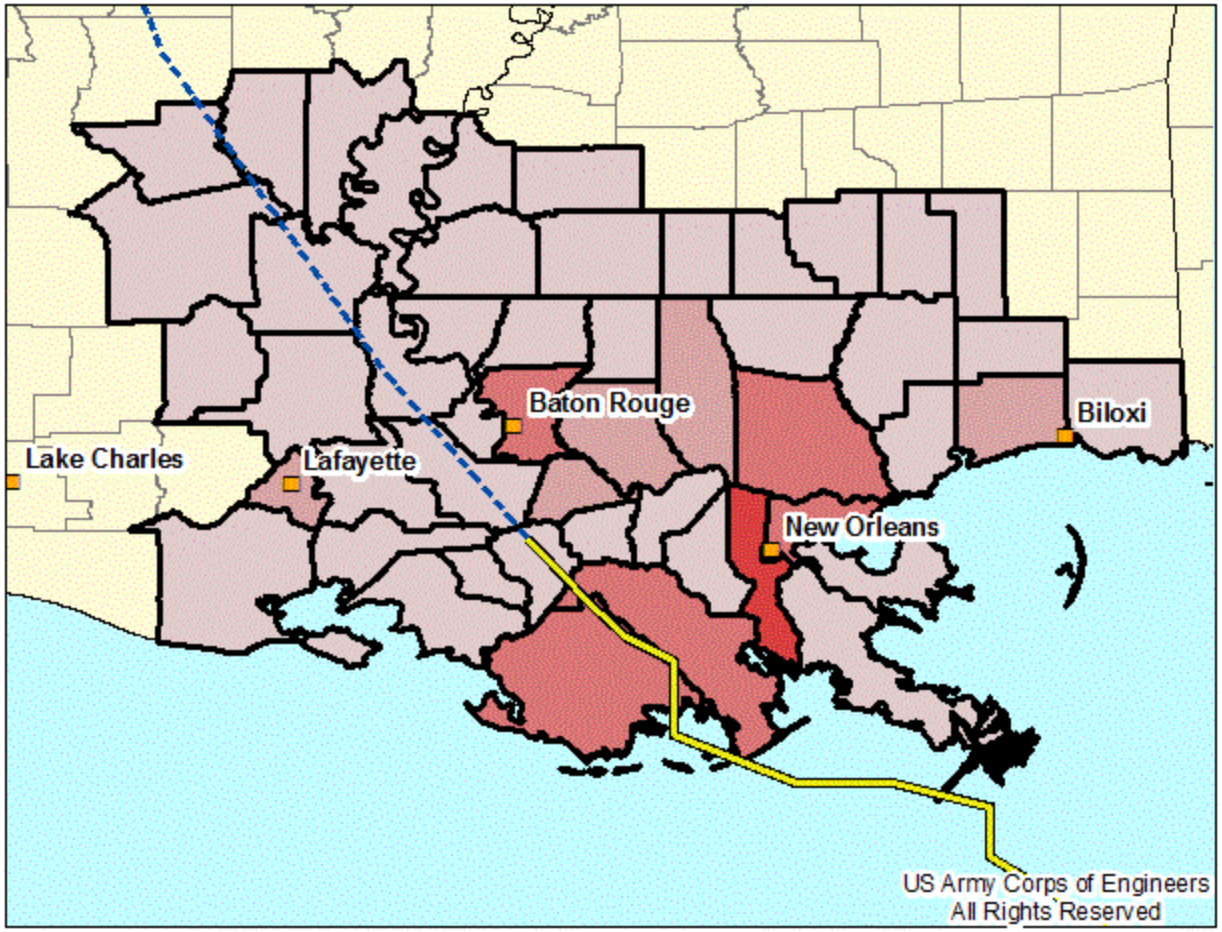
Hurricane Isaac Projected Damage Areas	
Generated By: Siemsen, LRL 1730 EDT 08/29/2012	
Sources: HURREVAC LRL-DEBRIS	

US Army Corps of Engineers

Hurricane Isaac Debris Model

Landfall Plus About 11 Hours

For Planning Purposes Only!



Post Landfall Debris Model Results

Louisiana - 3,773,000 Yards
Mississippi - 446,000 Yards

Model results per County on following page

This model is based on a Category 1 storm making landfall SE of Houma, LA.

Forecast Track
Historic Track

Debris

- < 100,000 cubic yards
- 100,000 - 249,999 cubic yards
- 250,000 - 499,999 cubic yards
- 500,000 - 999,999 cubic yards
- >1,000,000 cubic yards

Information provided on this page displays a Category 1 storm making landfall SE of Houma, LA. These projections are based on information from the NHC (1700 EDT 08/29/2012) forecast. The amount of debris forecasted is possible total volume, not necessarily the volume that may need to be removed with Federal funds, but does not include volume that may be covered by private insurance. Debris volume may include storm surge generated debris.

Details about this model may be obtained at http://www.englink.usace.army.mil
or contact Louisville District staff at DLL-CELRL-GIS@usace.army.mil

Hurricane Isaac Debris Model	
Generated By: Siemsen, LRL 1730 EDT 08/29/2012	
Sources: HURREVAC LRL-DEBRIS	

US Army Corps of Engineers

Hurricane Isaac Debris Model

Landfall Plus About 11 Hours

For Planning Purposes Only!

State	Yards per State	County	Yards per County
Louisiana		Ascension Parish	134,000
		Assumption Parish	42,000
		Avoyelles Parish	29,000
		Catahoula Parish	2,000
		Concordia Parish	2,000
		East Baton Rouge Parish	420,000
		East Feliciana Parish	14,000
		Evangeline Parish	2,000
		Grant Parish	2,000
		Iberia Parish	53,000
		Iberville Parish	39,000
		Jefferson Parish	604,000
		La Salle Parish	2,000
		Lafayette Parish	108,000
		Lafourche Parish	305,000
		Livingston Parish	172,000
		Orleans Parish	424,000
		Plaquemines Parish	91,000
		Pointe Coupee Parish	30,000
		Rapides Parish	13,000
		St. Bernard Parish	59,000
		St. Charles Parish	87,000
		St. Helena Parish	10,000
		St. James Parish	34,000
		St. John the Baptist Pari	57,000
		St. Landry Parish	52,000
		St. Martin Parish	39,000
		St. Mary Parish	97,000
		St. Tammany Parish	275,000
		Tangipahoa Parish	130,000
		Terrebonne Parish	371,000
Louisiana (continued)		Vermilion Parish	2,000
		Washington Parish	35,000
		West Baton Rouge Parish	27,000
		West Feliciana Parish	10,000
Louisiana	3,773,000		
Mississippi		Adams County	2,000
		Amite County	9,000
		Forrest County	2,000
		Franklin County	< 1,000
		Hancock County	82,000
		Harrison County	134,000
		Jackson County	68,000
		Lamar County	13,000
		Marion County	15,000
		Pearl River County	43,000
		Pike County	24,000
		Stone County	16,000
		Walthall County	18,000
		Wilkinson County	20,000
Mississippi	446,000		

The amount of debris forecasted is possible total volume, not necessarily the volume that may need to be removed with Federal funds, but does not include volume that may be covered by private insurance. Debris volume may include storm surge generated debris.

Details about this model may be obtained at http://www.englink.usace.army.mil or contact Louisville District staff at DLL-CELRL-GIS@usace.army.mil

Source: US Army Corps of Engineers, All Rights Reserved

Hurricane Isaac Debris Model

Generated By:
Siemsen, LRL 1730 EDT 08/29/2012

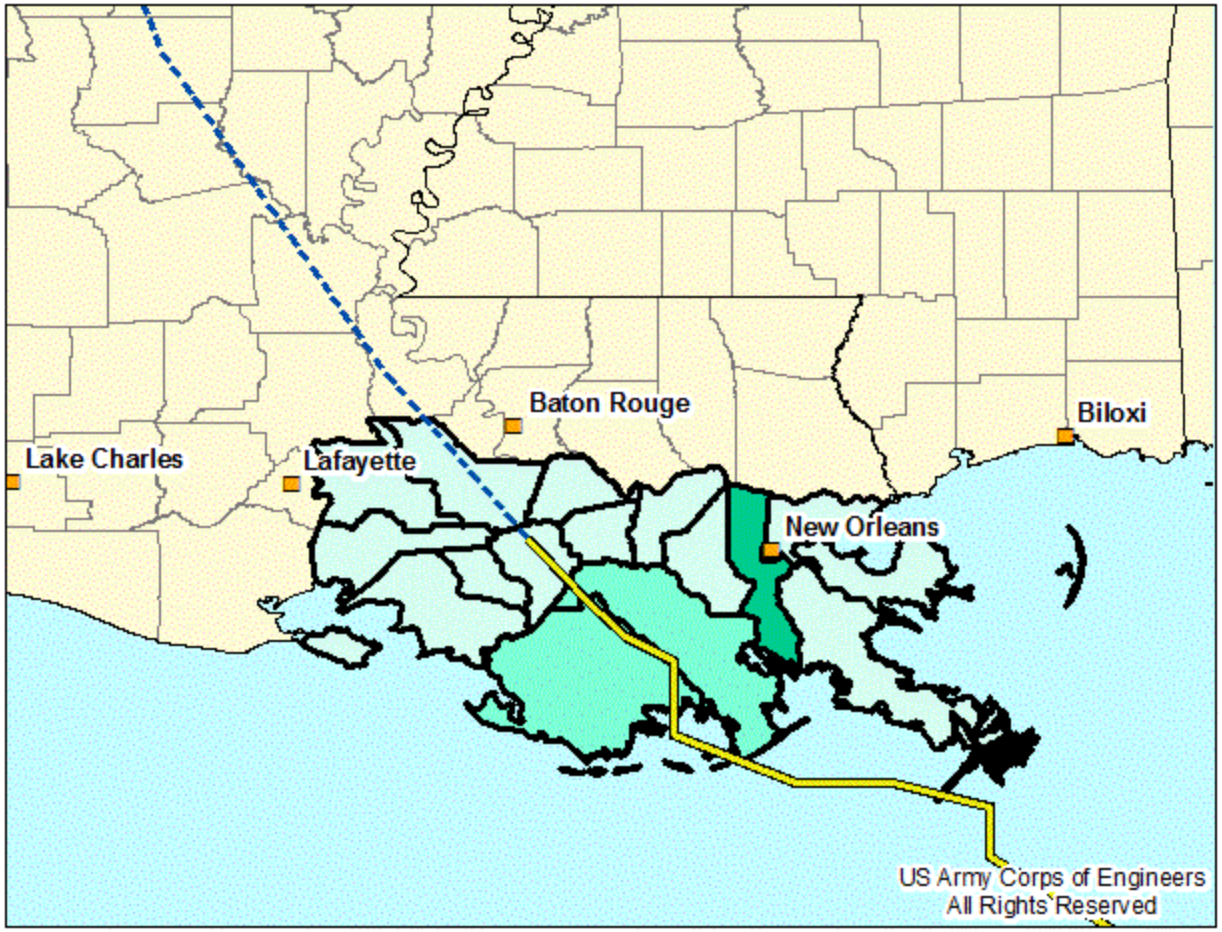
Sources:
HURREVAC
LRL-DEBRIS

US Army Corps of Engineers

Hurricane Isaac Commodities Model

Landfall Plus About 11 Hours

For Planning Purposes Only!



Post Landfall Water Model Results

Day One / Day Two / Day Three
Louisiana – 12/24/47 Truckloads

Model results per County on following page

This model is based on a Category 1 storm making landfall SE of Houma, LA.

Forecast Track
Historic Track

Commodities

- < 5 Trucks Each
- 5 - 10 Trucks Each
- 11 - 20 Trucks Each
- 21 - 40 Trucks Each
- > 40 Trucks Each

Information provided on this page displays a Category 1 storm making landfall SE of Houma, LA. These projections are based on information from the NHC ***(1700 EDT 08/29/2012)*** forecast. The amount of commodities forecasted is based on Mission Guide Book requirements and SME input. The graphic represents daily needs with a ramp-up in the distribution system – three days for Points of Distribution (PODs) to be fully in place and operational. Volume shown is for each commodity – water and ice. Commodity need may be supplied by multiple agencies and/or sources.

Details about this model may be obtained at http://www.englink.usace.army.mil
or contact Louisville District staff at DLL-CELRL-GIS@usace.army.mil

Hurricane Isaac Commodities Model	
Generated By: Siemsen, LRL 1730 EDT 08/29/2012	
Sources: HURREVAC LRL-DEBRIS	Page 4 of 18

US Army Corps of Engineers

Hurricane Isaac Commodities Model

Landfall Plus About 11 Hours

For Planning Purposes Only!

State	Truckloads per State	County	Truckloads per County
Louisiana		Ascension Parish	2
		Assumption Parish	2
		Iberia Parish	1
		Iberville Parish	1
		Jefferson Parish	12
		Lafourche Parish	6
		Orleans Parish	4
		Plaquemines Parish	2
		St. Bernard Parish	1
		St. Charles Parish	3
		St. James Parish	2
		St. John the Baptist Pari	1
		St. Martin Parish	1
		St. Mary Parish	2
		Terrebonne Parish	7
Louisiana	47		

Source: US Army Corps of Engineers, All Rights Reserved

The amount of commodities forecasted is based on Mission Guide Book requirements and SME input and the above table indicates suggested daily needs based on full deployment of a commodities distribution system. Volume shown is for each commodity – water and ice. Commodity need may be supplied by multiple agencies and/or sources.

Details about this model may be obtained at http://www.englink.usace.army.mil or contact Louisville District staff at DLL-CELRL-GIS@usace.army.mil

Hurricane Isaac Commodities Model

Generated By:
Siemsen, LRL 1730 EDT 08/29/2012

Sources:
HURREVAC
LRL-DEBRIS

US Army Corps of Engineers

Hurricane Isaac Temporary Roofing Model

Landfall Plus About 11 Hours

For Planning Purposes Only!

Post Landfall Temporary Roofing Model Results

Louisiana - 5,800

Model results per County on following page

This model is based on a Category 1 storm making landfall SE of Houma, LA.

Forecast Track
Historic Track

Temporary Roofing

- < 2,000 units
- 2,000 - 3,999 units
- 4,000 - 5,999 units
- 6,000 - 9,999 units
- > 10,000 units

Information provided on this page displays a Category 1 storm making landfall SE of Houma, LA. These projections are based on information from the NHC (1700 EDT 08/29/2012) forecast. Temporary roofing is based on 3% in CAT 1.

Details about this model may be obtained at http://www.englink.usace.army.mil or contact Louisville District staff at DLL-CELRL-GIS@usace.army.mil

Hurricane Isaac Roofing Model	
Generated By: Siemsen, LRL 1730 EDT 08/29/2012	
Sources: HURREVAC LRL-DEBRIS	Page 6 of 18

US Army Corps of Engineers

Hurricane Isaac Temporary Roofing Model

Landfall Plus About 11 Hours

For Planning Purposes Only!

State	House Units per State	County	House Units per County
Louisiana		Ascension Parish	200
		Assumption Parish	300
		Iberia Parish	< 100
		Iberville Parish	< 100
		Jefferson Parish	1,600
		Lafourche Parish	800
		Orleans Parish	500
		Plaquemines Parish	300
		St. Bernard Parish	< 100
		St. Charles Parish	500
		St. James Parish	300
		St. John the Baptist Pari	200
		St. Martin Parish	< 100
		St. Mary Parish	300
		Terrebonne Parish	800
Louisiana	5,800		

Temporary roofing is based on 3% in CAT 1.

Details about this model may be obtained at http://www.englink.usace.army.mil or contact Louisville District staff at DLL-CELRL-GIS@usace.army.mil

Source: US Army Corps of Engineers, All Rights Reserved

Hurricane Isaac Roofing Model

Generated By:
Siemsen, LRL 1730 EDT 08/29/2012

Sources:
HURREVAC
LRL-DEBRIS

US Army Corps of Engineers

Hurricane Isaac Temporary Housing Model

Landfall Plus About 11 Hours

For Planning Purposes Only!

Post Landfall Temporary Housing Model Results

No Temporary Housing need expected due to winds

Model results per County on following page

This model is based on a Category 1 storm making landfall SE of Houma, LA.

Forecast Track
Historic Track

Temporary Housing

- < 2,000 units
- 2,000 - 3,999 units
- 4,000 - 5,999 units
- 6,000 - 9,999 units
- > 10,000 units

Information provided on this page displays a Category 1 storm making landfall SE of Houma, LA. These projections are based on information from the NHC (1700 EDT 08/29/2012) forecast. Temporary housing is based on nothing. The number indicated represents a possible need but not necessarily the scope of mission for USACE.

Details about this model may be obtained at http://www.englink.usace.army.mil
or contact Louisville District staff at DLL-CELRL-GIS@usace.army.mil

Hurricane Isaac Housing Model	
Generated By: Siemsen, LRL 1730 EDT 08/29/2012	
Sources: HURREVAC LRL-DEBRIS	

US Army Corps of Engineers

Hurricane Isaac Temporary Housing Model

Landfall Plus About 11 Hours

For Planning Purposes Only!

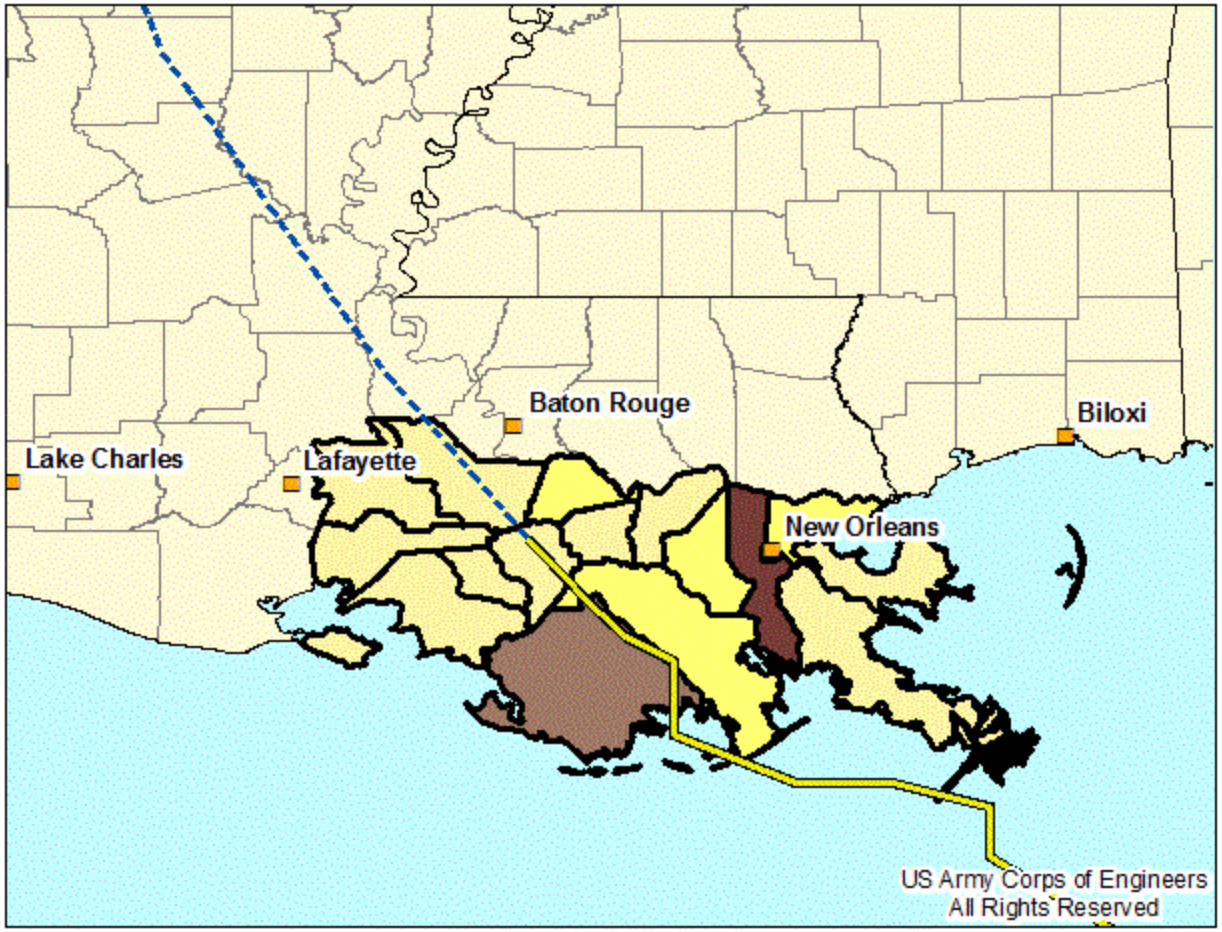
State	House Units per State	County	House Units per County

US Army Corps of Engineers

Hurricane Isaac Population Model

Landfall Plus About 11 Hours

For Planning Purposes Only!



Post Landfall Population Model Results

Louisiana - 654,000

Model results per County on following page

This model is based on a Category 1 storm making landfall SE of Houma, LA.

Forecast Track
Historic Track

Population

- < 25,000 persons
- 25,000 - 99,999 persons
- 100,000 - 174,999 persons
- 175,000 - 249,999 persons
- > 250,000 persons

Information provided on this page displays a Category 1 storm making landfall SE of Houma, LA. These projections are based on information from the NHC (1700 EDT 08/29/2012) forecast. The numbers of persons included in this model output are those that would be included within estimated hurricane force winds (Census 2010 values adjusted to July 2011 values).

Details about this model may be obtained at http://www.englink.usace.army.mil
or contact Louisville District staff at DLL-CELRL-GIS@usace.army.mil

Hurricane Isaac Population Model	
Generated By: Siemsen, LRL 1730 EDT 08/29/2012	
Sources: HURREVAC LRL-DEBRIS	

US Army Corps of Engineers

Hurricane Isaac Population Model

Landfall Plus About 11 Hours

For Planning Purposes Only!

State	Population per State	County	Population per County
Louisiana		Ascension Parish	26,000
		Assumption Parish	24,000
		Iberia Parish	2,000
		Iberville Parish	3,000
		Jefferson Parish	202,000
		Lafourche Parish	97,000
		Orleans Parish	56,000
		Plaquemines Parish	24,000
		St. Bernard Parish	6,000
		St. Charles Parish	48,000
		St. James Parish	22,000
		St. John the Baptist Pari	15,000
		St. Martin Parish	2,000
		St. Mary Parish	21,000
		Terrebonne Parish	106,000
Louisiana	654,000		

The number of persons estimated to be within the hurricane force winds comes from Census 2010 values adjusted to July 2011 values.

Details about this model may be obtained at http://www.englink.usace.army.mil
or contact Louisville District staff at DLL-CELRL-GIS@usace.army.mil

Source: US Army Corps of Engineers, All Rights Reserved

Hurricane Isaac Population Model

Generated By:
Siemsen, LRL 1730 EDT 08/29/2012

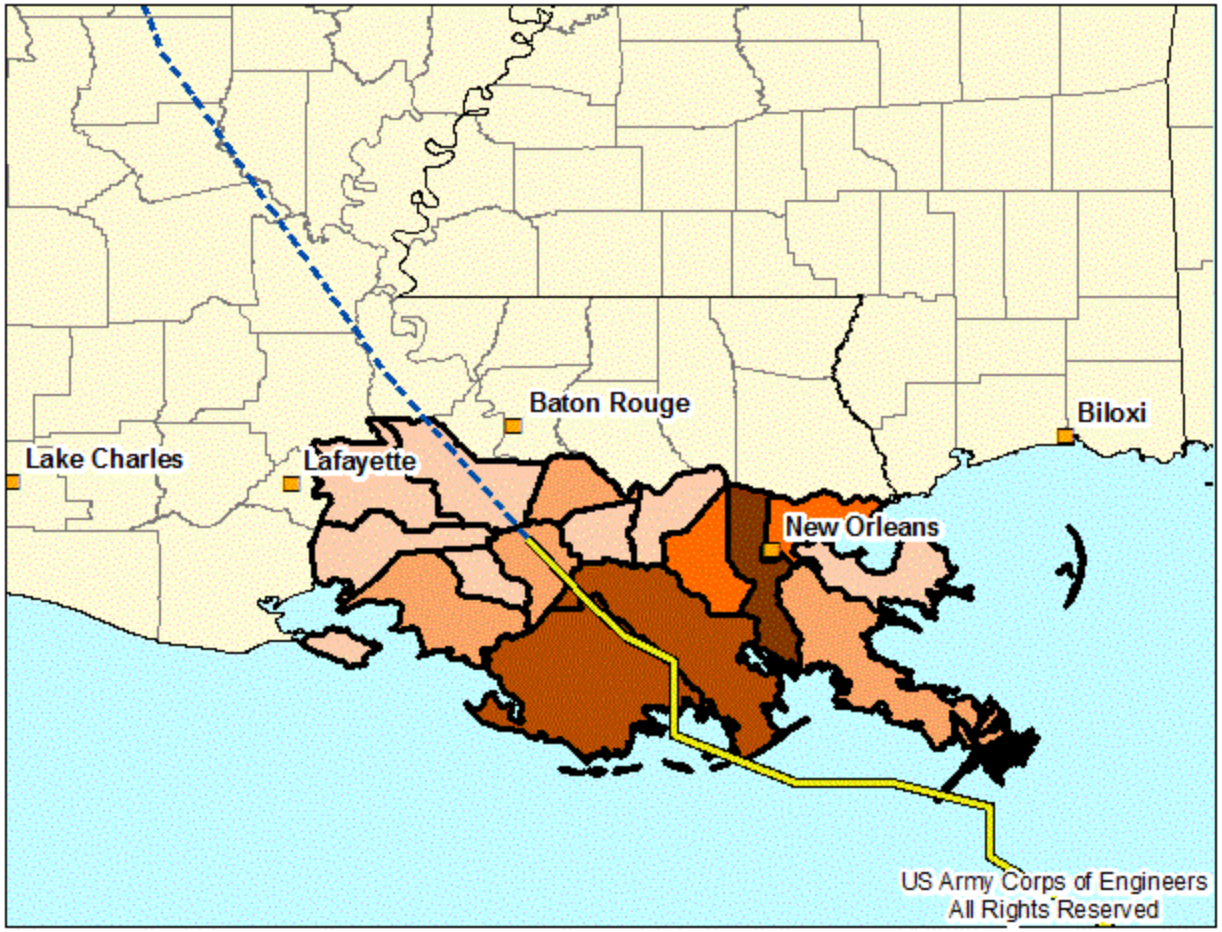
Sources:
HURREVAC
LRL-DEBRIS

US Army Corps of Engineers

Hurricane Isaac Households Model

Landfall Plus About 11 Hours

For Planning Purposes Only!



Post Landfall Households Model Results

Louisiana - 234,000

Model results per County on following page

This model is based on a Category 1 storm making landfall SE of Houma, LA.

Forecast Track
Historic Track

Households

- < 7,500 households
- 7,500 - 14,999 households
- 15,000 - 24,999 households
- 25,000 - 49,999 households
- > 50000 households

Information provided on this page displays a Category 1 storm making landfall SE of Houma, LA. These projections are based on information from the NHC (1700 EDT 08/29/2012) forecast. The numbers of households included in this model output are those that would be included within estimated hurricane force winds (Census 2010 values adjusted to July 2011 values).

Details about this model may be obtained at http://www.englink.usace.army.mil
or contact Louisville District staff at DLL-CELRL-GIS@usace.army.mil

Hurricane Isaac Households Model	
Generated By: Siemsen, LRL 1730 EDT 08/29/2012	
Sources: HURREVAC LRL-DEBRIS	

US Army Corps of Engineers

Hurricane Isaac Households Model

Landfall Plus About 11 Hours

For Planning Purposes Only!

State	Households per State	County	Households per County
Louisiana		Ascension Parish	9,000
		Assumption Parish	9,000
		Iberia Parish	< 1,000
		Iberville Parish	2,000
		Jefferson Parish	71,000
		Lafourche Parish	35,000
		Orleans Parish	24,000
		Plaquemines Parish	8,000
		St. Bernard Parish	2,000
		St. Charles Parish	17,000
		St. James Parish	7,000
		St. John the Baptist Pari	5,000
		St. Martin Parish	< 1,000
		St. Mary Parish	8,000
		Terrebonne Parish	37,000
Louisiana	234,000		

The number of households estimated to be within the hurricane force winds comes from Census 2010 values adjusted to July 2011 values.

Details about this model may be obtained at http://www.englink.usace.army.mil
or contact Louisville District staff at DLL-CELRL-GIS@usace.army.mil

Source: US Army Corps of Engineers, All Rights Reserved

Hurricane Isaac Households Model

Generated By:
Siemsen, LRL 1730 EDT 08/29/2012

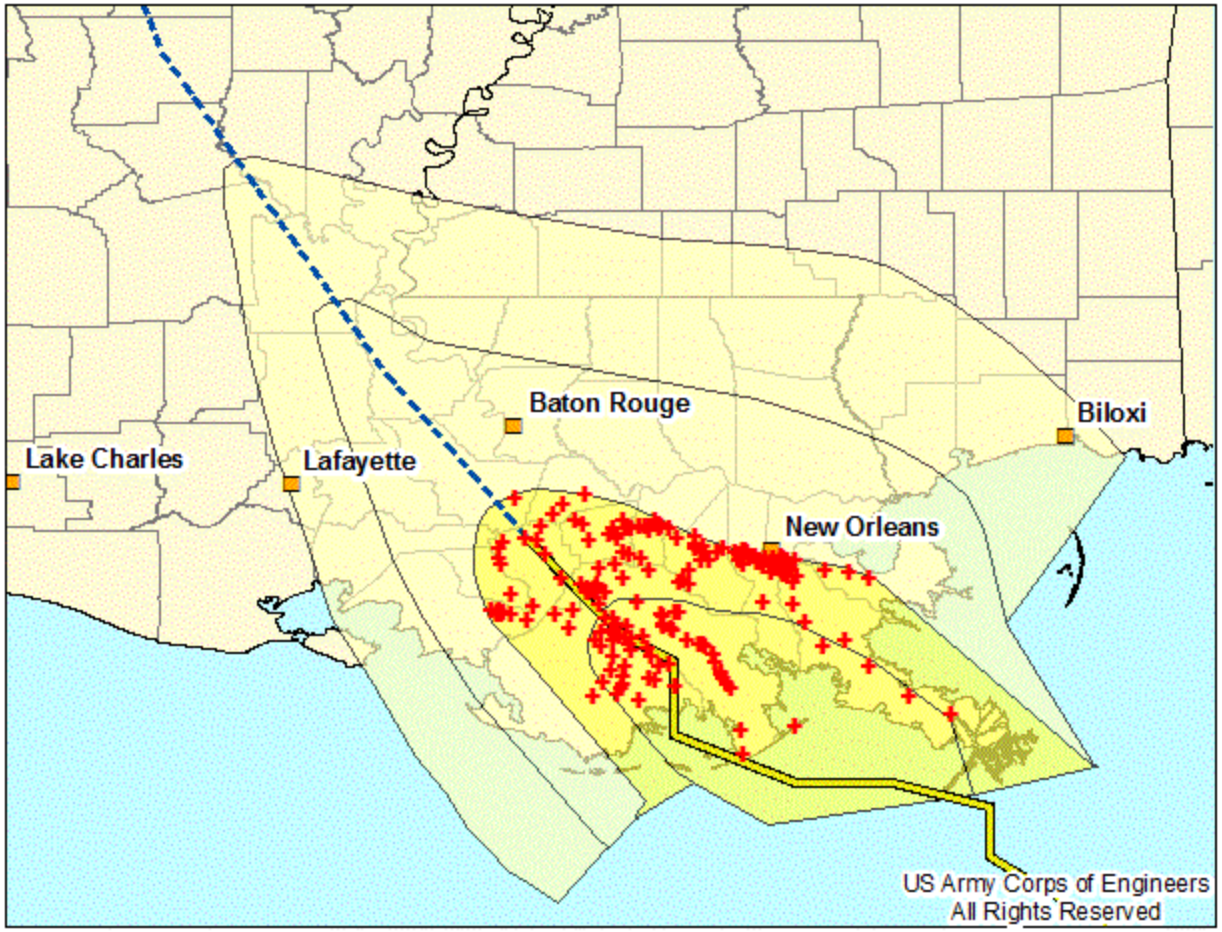
Sources:
HURREVAC
LRL-DEBRIS

US Army Corps of Engineers

Hurricane Isaac Fire Stations

Landfall Plus About 11 Hours

For Planning Purposes Only!



Most Probable Landfall Fire Stations Inside Hurricane Force Winds

Louisiana - 185

Model results per County on following page

This model is based on a Category 1 storm making landfall SE of Houma, LA.

+ Fire Stations
Forecast Track
Historic Track

Information provided on this page displays a Category 1 storm making landfall SE of Houma, LA. These projections are based on information from the NHC (1700 EDT 08/29/2012) forecast.

The number of fire stations included in this output are those that would be included within estimated hurricane force winds (data source: HSIP Gold 2012).

Details about this model may be obtained at http://www.englink.usace.army.mil or contact Louisville District staff at DLL-CELRL-GIS@usace.army.mil

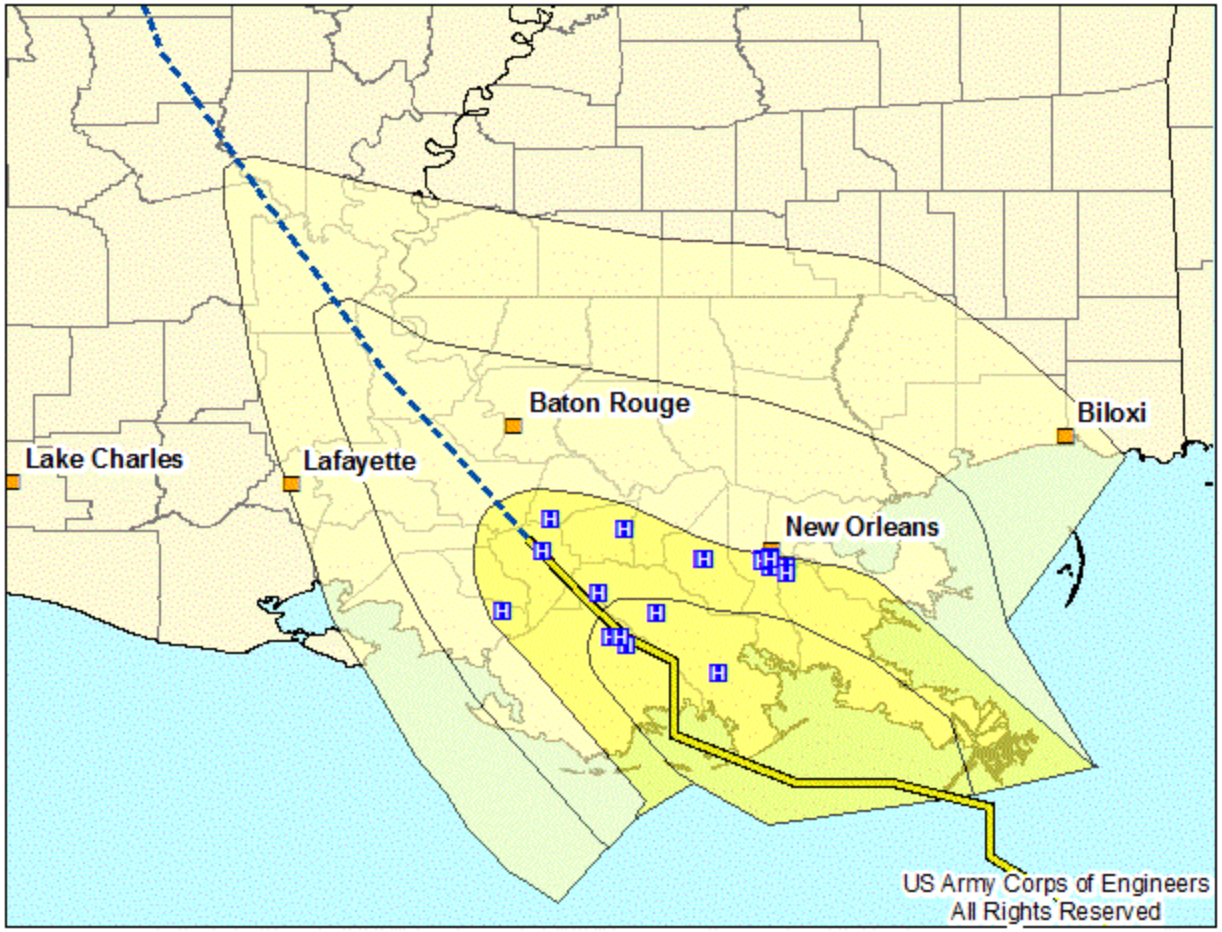
Hurricane Isaac Fire Stations	
Generated By: Siemsen, LRL 1730 EDT 08/29/2012	
Sources: HURREVAC LRL-DEBRIS	Page 14 of 18

US Army Corps of Engineers

Hurricane Isaac Hospitals

Landfall Plus About 11 Hours

For Planning Purposes Only!



Most Probable Landfall Hospitals Inside Hurricane Force Winds

Louisiana - 23

Model results per County on following page

This model is based on a Category 1 storm making landfall SE of Houma, LA.

H Hospitals
Forecast Track
Historic Track

Information provided on this page displays a Category 1 storm making landfall SE of Houma, LA. These projections are based on information from the NHC (1700 EDT 08/29/2012) forecast.

The number of hospitals included in this output are those that would be included within estimated hurricane force winds (data source: HSIP Gold 2012).

Details about this model may be obtained at http://www.englink.usace.army.mil or contact Louisville District staff at DLL-CELRL-GIS@usace.army.mil

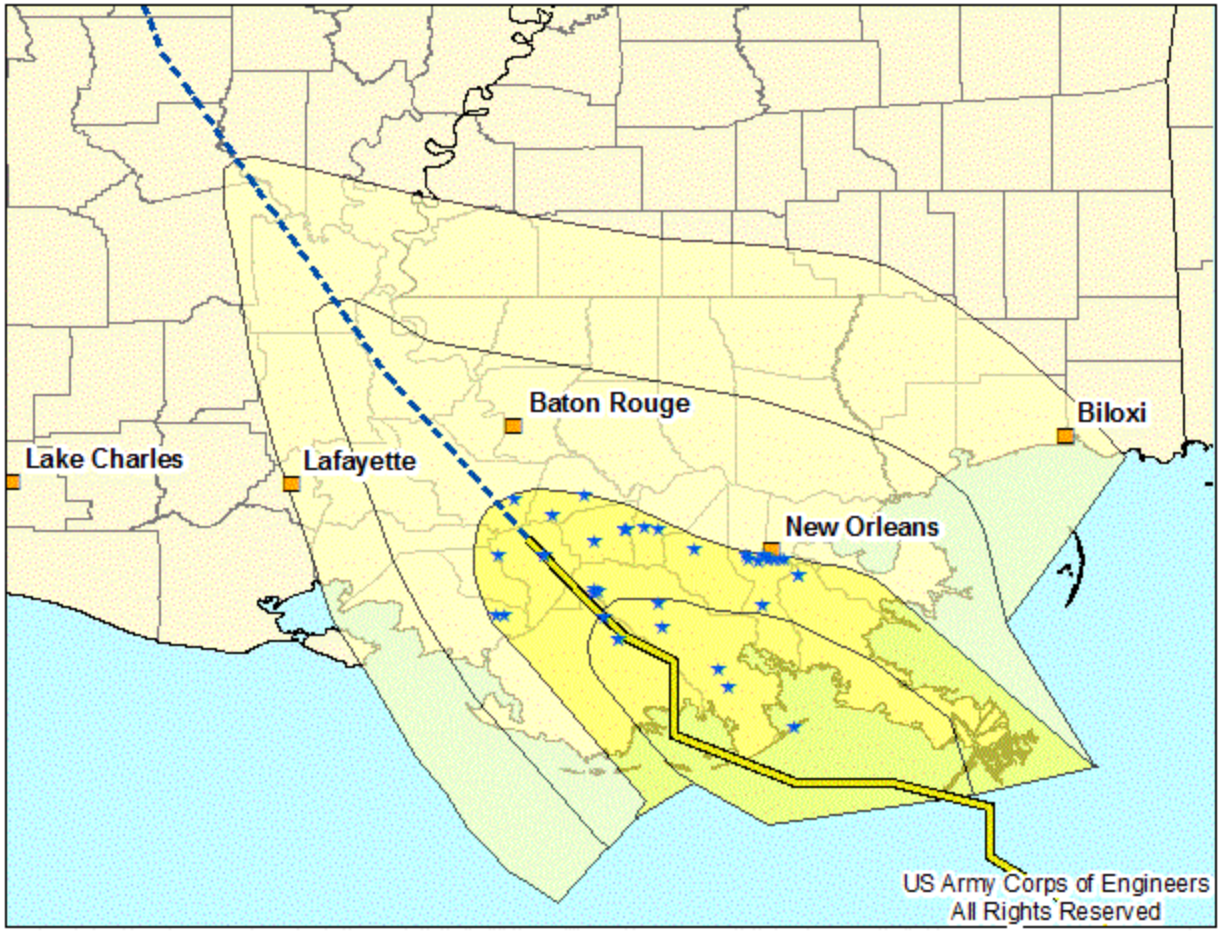
Hurricane Isaac Hospitals	
Generated By: Siemsen, LRL 1730 EDT 08/29/2012	
Sources: HURREVAC LRL-DEBRIS	Page 15 of 18

US Army Corps of Engineers

Hurricane Isaac Law Enforcement

Landfall Plus About 11 Hours

For Planning Purposes Only!



Most Probable Landfall Law Enforcement Inside Hurricane Force Winds

Louisiana - 38

Model results per County on following page

This model is based on a Category 1 storm making landfall SE of Houma, LA.

★ Law Enforcement
Forecast Track
Historic Track

Information provided on this page displays a Category 1 storm making landfall SE of Houma, LA. These projections are based on information from the NHC (1700 EDT 08/29/2012) forecast.

The number of law enforcement included in this output are those that would be included within estimated hurricane force winds (data source: HSIP Gold 2012).

Details about this model may be obtained at http://www.englink.usace.army.mil or contact Louisville District staff at DLL-CELRL-GIS@usace.army.mil

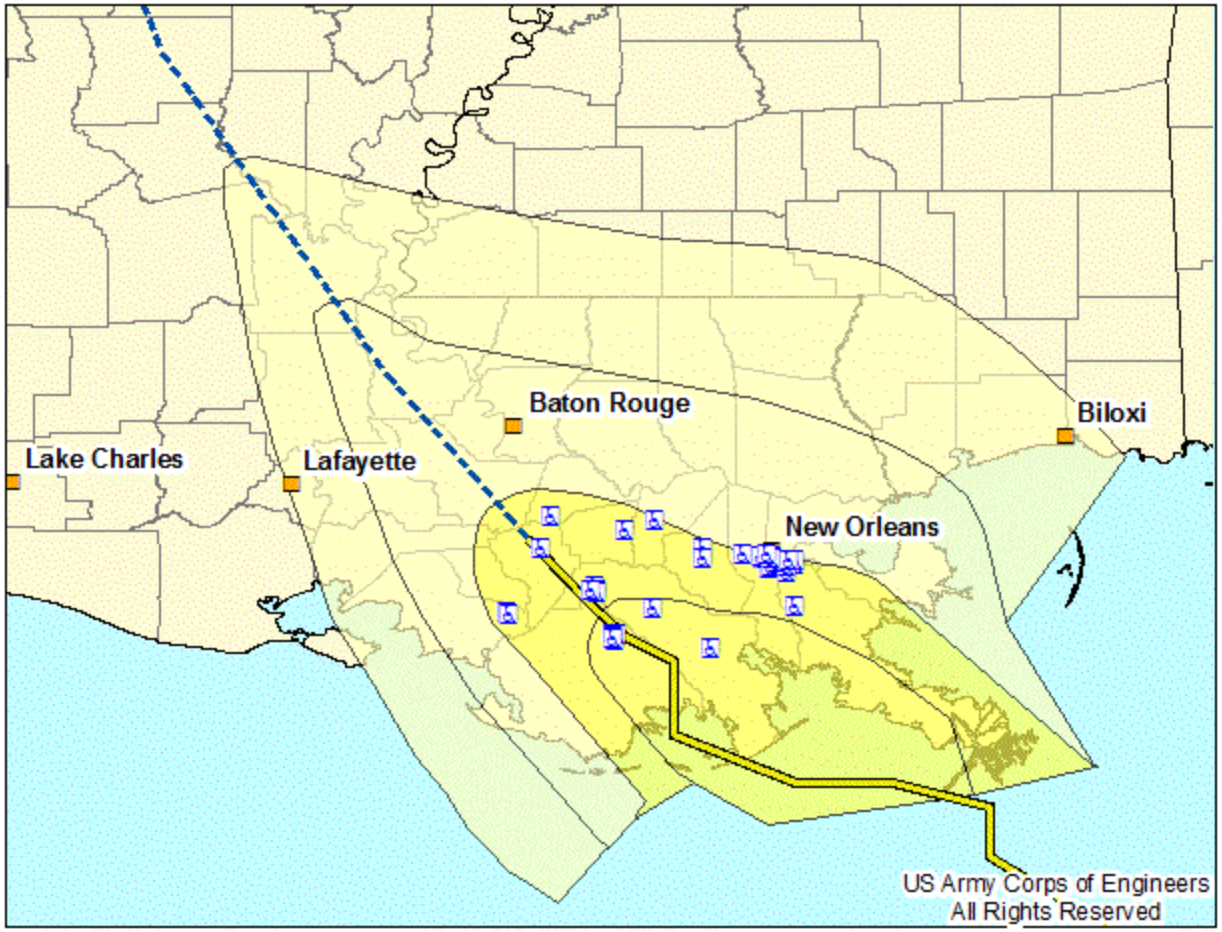
Hurricane Isaac Law Enforcement	
Generated By: Siemsen, LRL 1730 EDT 08/29/2012	
Sources: HURREVAC LRL-DEBRIS	Page 16 of 18

US Army Corps of Engineers

Hurricane Isaac Nursing Homes

Landfall Plus About 11 Hours

For Planning Purposes Only!



Most Probable Landfall Nursing Homes Inside Hurricane Force Winds

Louisiana - 44

Model results per County on following page

This model is based on a Category 1 storm making landfall SE of Houma, LA.

Nursing Homes
Forecast Track
Historic Track

Information provided on this page displays a Category 1 storm making landfall SE of Houma, LA. These projections are based on information from the NHC (1700 EDT 08/29/2012) forecast.

The number of nursing homes included in this output are those that would be included within estimated hurricane force winds (data source: HSIP Gold 2012).

Details about this model may be obtained at http://www.englink.usace.army.mil or contact Louisville District staff at DLL-CELRL-GIS@usace.army.mil

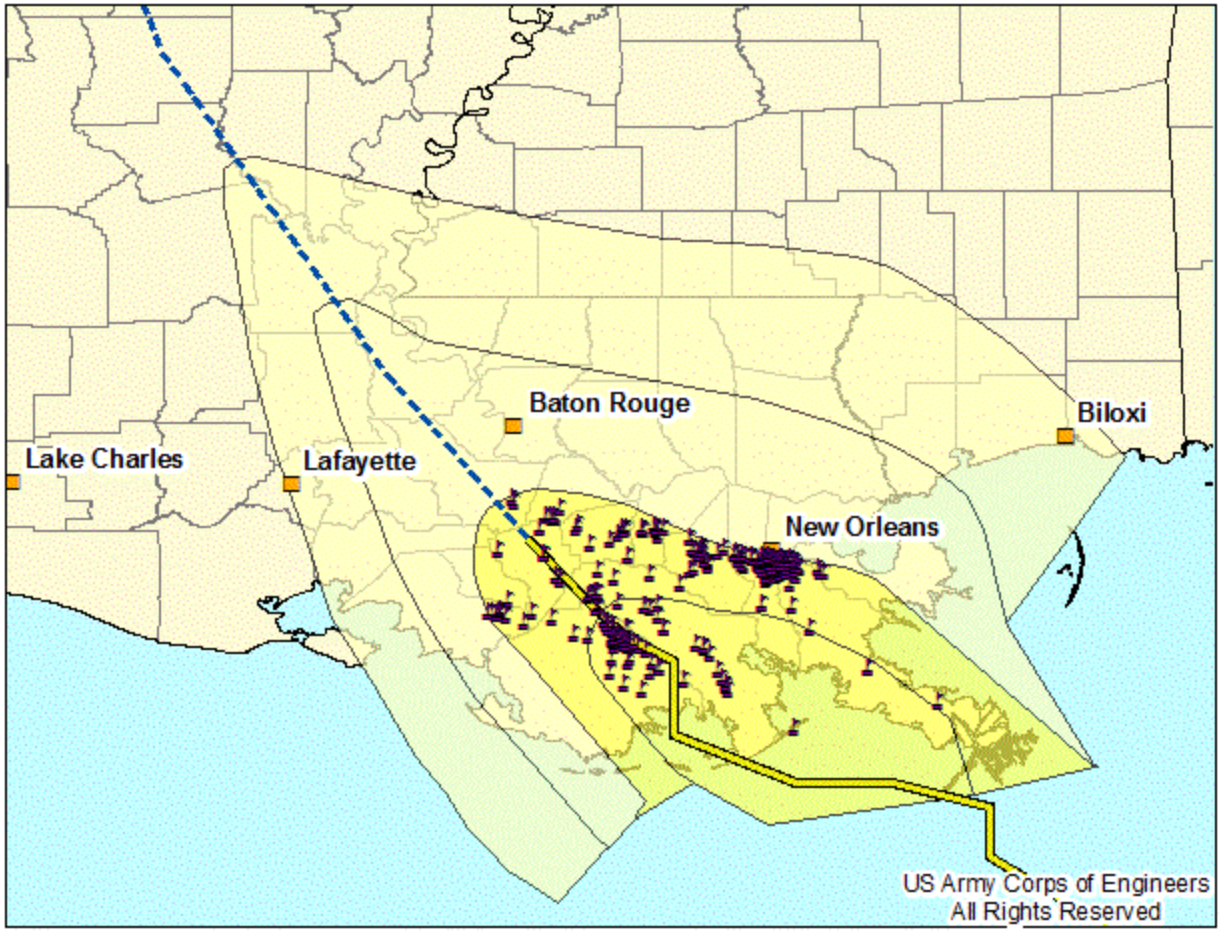
Hurricane Isaac Nursing Homes	
Generated By: Siemsen, LRL 1730 EDT 08/29/2012	
Sources: HURREVAC LRL-DEBRIS	

US Army Corps of Engineers

Hurricane Isaac Schools

Landfall Plus About 11 Hours

For Planning Purposes Only!



Most Probable Landfall Schools Inside Hurricane Force Winds

Louisiana - 255

Model results per County on following page

This model is based on a Category 1 storm making landfall SE of Houma, LA.

Schools
Forecast Track
Historic Track

Information provided on this page displays a Category 1 storm making landfall SE of Houma, LA. These projections are based on information from the NHC (1700 EDT 08/29/2012) forecast.

The number of schools included in this output are those that would be included within estimated hurricane force winds (data source: HSIP Gold 2012).

Details about this model may be obtained at http://www.englink.usace.army.mil or contact Louisville District staff at DLL-CELRL-GIS@usace.army.mil

Hurricane Isaac Schools	
Generated By: Siemsen, LRL 1730 EDT 08/29/2012	
Sources: HURREVAC LRL-DEBRIS	